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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,186	11/17/2003	Lawrence Conaway	RB-0108	3338

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Robert C. Brown
1207 Sandhurst Drive
Tallahassee, FL 32312

EXAMINER	
REIFSNYDER, DAVID A	

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/715,186	CONAWAY ET AL.	
	Examiner	Art Unit	
	David A Reifsnyder	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-62* is/are pending in the application.

4a) Of the above claim(s) *34-62* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented.

Misnumbered claims **46-63** have been **renumbered** as claims **45-62**, respectively.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-33, drawn to a method for separating bitumen material from mineral particulates in grains of hydrocarbonaceous ore, classified in class 210, subclass 759.

II. Claims 34-62, drawn to a system for separating bitumen material from mineral particulates in grains of hydrocarbonaceous ore, classified in class 210, subclass 175.

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, since the intended use of the apparatus is not a structural

limitation of the apparatus, the apparatus can be used to practice a materially different process such as cleaning dirt contaminated with oil. Furthermore, the process as claimed can be practiced by a materially different apparatus, such as an apparatus which does not include a means for mixing or a means for adding peroxide because the ore and water can be mixed by hand, and the peroxide can be added by hand.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Robert C. Brown on June 2, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 34-62 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Abstract

The specification is objected to because the because the abstract of the disclosure is too long. Correction is required. See MPEP § 608.01(b). The new

abstract should be on a separate sheet of paper and have between 50 and 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-7, 19-22, 26, 27 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4; the recitation in step (c) of "attaching oxygen bubbles to said second bitumen material" is vague and indefinite as to where the oxygen bubbles come from and it is also vague and indefinite as to how the oxygen bubbles attach to the second bitumen material.

Regarding claim 6; the recitation of "said first separation tank" lacks antecedent basis.

Regarding claim 19; the recitation of "said recovering step" lacks antecedent basis.

Regarding claim 20; the recitation of "said recovering step" lacks antecedent basis.

Regarding claim 21; the recitation of "said water phase" lacks antecedent basis.

Regarding claim 22; the recitation of "said sand" lacks antecedent basis.

Regarding claim 26; the recitation of "clay size particles" is vague and indefinite as to what size particle is "clay size".

Regarding claim 27; the recitation of "said mineral substrate" lacks antecedent basis.

Regarding claim 32; the recitation of "collecting gaseous hydrocarbons generated in said method" is vague and indefinite as to the method generates gaseous hydrocarbons.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 10, 12-16, 23-28, 32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Canadian Published Patent Application No. 2,177,018.

Regarding claims 1-3, 10, 12-16, 23-28, 32 and 33; Canadian Published Patent Application No. 2,177,018 discloses a method of separating oil and bitumen from sand comprising mixing and agitating (i.e. shearing) said sand containing oil and bitumen with water in a tank for some time to form an aqueous slurry; tempering said aqueous to about 45°C, the tempering of the slurry inherently taking at least 8 minutes; adding hydrogen peroxide to the slurry and agitating (i.e. shearing) the slurry for some time; the

hydrogen peroxide serves as a catalyst and initiates a vigorous reaction by inherently forming oxygen bubbles between said bitumen and said sand by decomposing a portion of said hydrogen peroxide therein; the vigorous reaction separates the aqueous slurry into an upper froth layer containing oil and bitumen, a middle clean water layer and a lower clean sand layer; skimming the upper froth layer containing oil and bitumen; removing the middle clean water layer; and removing the lower clean sand layer. (see the abstract and col. 5, line 19 to col. 6, line 15)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-9 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Published Patent Application No. 2,177,018.

Regarding claims 4-7; Canadian Published Patent Application No. 2,177,018 discloses a method as discussed above but fails to disclose further treating his removed clean sand layer. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to further treat the sand layer if it still contained some oil and bitumen. Furthermore, it is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have further treated the sand layer containing oil and bitumen the same way as it was treated the first time.

Regarding claims 8 and 9; Canadian Published Patent Application No. 2,177,018 discloses a method as discussed above but fails to disclose further treating froth layer containing bitumen and oil. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to further treat the froth layer

containing bitumen and oil if it still contained sand. Furthermore, it is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have further treated the froth layer containing bitumen, sand and oil the same way as it was treated the first time.

Regarding claim 29-31; Canadian Published Patent Application No. 2,177,018 discloses a method as discussed above but fails to disclose the step of treating his sand before said mixing step by sieving the sand in a rotary trommel. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to sieve the sand to remove any large rocks and also make the sand finer so that it better reacts with the hydrogen peroxide. Furthermore, a rotary trommel is a conventional type of mixing device.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Published Patent Application No. 2,177,018 in view of Losack.

Regarding claim 11; Canadian Published Patent Application No. 2,177,018 discloses a method as discussed above which includes tempering said aqueous slurry to about 45°C but fails to disclose tempering said aqueous slurry to about 80°C, Losack discloses a method of cleaning soil contaminated with oil which includes adding water to the soil to form an aqueous slurry, and adding hydrogen peroxide to the aqueous slurry (see claim 1) while tempering said aqueous slurry to about 80°C (see claim 6). It is considered that it would have been obvious to one having ordinary skill in the art at

the time of the invention to have tempered the aqueous slurry of Canadian Published Patent Application No. 2,177,018 to 80°C as taught by Losack because it is well known when cleaning things that the hotter the water, at least up to boiling, the better. (see claim 6 of Losack) Furthermore, Losack. and Canadian Published Patent Application No. 2,177,018 teach similar processes.

Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Published Patent Application No. 2,177,018 in view of Luft et al.

Regarding claims 17-22; Canadian Published Patent Application No. 2,177,018 discloses a method as discussed above but fails to disclose increasing pressure to be a gauge pressure of 1 to 5 atmospheres. Luft et al. discloses a method of cleaning a medium contaminated with organic constituents which includes adding water to the soil to form an aqueous slurry, and adding hydrogen peroxide to the aqueous slurry while pressurizing said aqueous slurry at a pressure range of approximately 2 to 19 gauge pressure. (See claim 1 and convert bar to gauge pressure) It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have pressurized the slurry of Canadian Published Patent Application No. 2,177,018 as taught by Luft et al. because it is well known when cleaning things, to do so at elevated pressures. Furthermore, Luft et al. and Canadian Published Patent Application No. 2,177,018 teach similar processes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Reifsnyder whose telephone number is (571) 271-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR